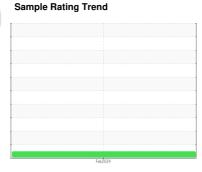


OIL ANALYSIS REPORT









OR4702 Component **Diesel Engine**

PETRO CANADA DURON UHP 5W40 (

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

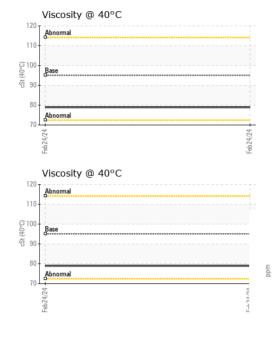
Fluid Condition

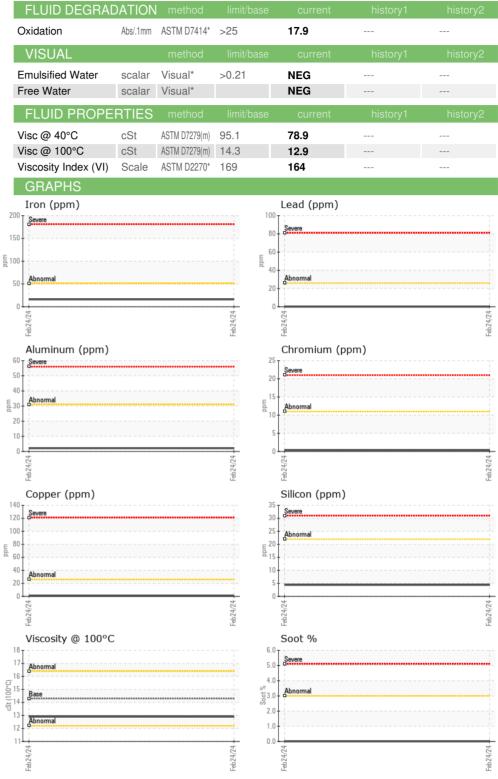
The condition of the oil is acceptable for the time in service.

Water WC Method >0.21 NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 Iron ppm ASTM D5185(m) >51 16 Chromium ppm ASTM D5185(m) >11 <1 Nickel ppm ASTM D5185(m) >5 <1 Titanium ppm ASTM D5185(m) >3 0 Silver ppm ASTM D5185(m) >3 0 Aluminum ppm ASTM D5185(m) >26 0 Lead ppm ASTM D5185(m) >26 <1 Copper ppm ASTM D5185(m) >4 0 Tin ppm ASTM D5185(m) >4 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0	
Sample Date Client Info 24 Feb 2024	history2
Machine Age hrs Client Info 5765 Oil Age hrs Client Info 0 Oil Changed Client Info Changed Sample Status NORMAL CONTAMINATION method limit/base current history1 Fuel WC Method >2.1 <1.0 Water WC Method >0.21 NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 Iron ppm ASTM D5185(m) >51 16 Chromium ppm ASTM D5185(m) >5 <1 Nickel ppm ASTM D5185(m) >5 <1 Titanium ppm ASTM D5185(m) >3 0 Aluminum ppm ASTM D5185(m) >26 0 Lead ppm ASTM D5185(m) >26 <1 Tin ppm ASTM D5185(m) >26 <1 Tin ppm ASTM D5185(m) >4 0 Tin ppm ASTM D5185(m) 0 Antimony ppm ASTM D5185(m) 0 Antimony ppm ASTM D5185(m) 0 Antimony ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 ADDITIVES method limit/base current	
Oil Age hrs Client Info 0 Oil Changed Client Info Changed Sample Status NORMAL CONTAMINATION method limit/base current history1 Fuel WC Method >2.1 <1.0	
Contained Client Info Changed Contained Contained Normal Contained Contain	
CONTAMINATION method limit/base current history1	
CONTAMINATION method limit/base current history1	
Water WC Method >2.1 <1.0	
Water WC Method >0.21 NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 Iron ppm ASTM D5185(m) >51 16 Chromium ppm ASTM D5185(m) >11 <1	history2
WEAR METALS	
WEAR METALS method limit/base current history1 Iron ppm ASTM D5185(m) >51 16 Chromium ppm ASTM D5185(m) >11 <1	
Chromium	
Chromium	history2
Chromium	
Nickel	
Description	
Silver	
Aluminum	
Description	
Copper ppm ASTM D5185(m) >26 <1 Tin ppm ASTM D5185(m) >4 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185(m) 65 46 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 65 57 Manganese ppm ASTM D5185(m) 0 0 Magnesium ppm ASTM D5185(m) 1160 1076 Calcium ppm ASTM D5185(m) 1160 1018 Zinc ppm ASTM D5185(m)	
Tin ppm ASTM D5185(m) >4 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 Boron ppm ASTM D5185(m) 65 46 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 65 57 Manganese ppm ASTM D5185(m) 6 0 0 Magnesium ppm ASTM D5185(m) 0 0 Calcium ppm ASTM D5185(m) 1160 1076 Calcium ppm ASTM D5185(m) 1160 1018 Zinc ppm ASTM D5185(m) 1260 1158 Sulfur ppm ASTM D5185(m) 3000 2952 Lithium ppm ASTM D5185(m) 3000 2952 Lithium ppm ASTM D5185(m) <-1	
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Molybdenum ppm ASTM D5185(m) 65 57 Manganese ppm ASTM D5185(m) 0 0 Magnesium ppm ASTM D5185(m) 1160 1076 Calcium ppm ASTM D5185(m) 820 830 Phosphorus ppm ASTM D5185(m) 1160 1018 Zinc ppm ASTM D5185(m) 1260 1158 Sulfur ppm ASTM D5185(m) 3000 2952 Lithium ppm ASTM D5185(m) <1	
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Zinc ppm ASTM D5185(m) 1260 1158 Sulfur ppm ASTM D5185(m) 3000 2952 Lithium ppm ASTM D5185(m) <1	
Sulfur ppm ASTM D5185(m) 3000 2952 Lithium ppm ASTM D5185(m) <1	
Lithium ppm ASTM D5185(m) <1	
CONTAMINANTS method limit/base current history1	history2
Silicon ppm ASTM D5185(m) >22 4	
Sodium ppm ASTM D5185(m) >31 4	
Potassium ppm ASTM D5185(m) >20 <1	
INFRA-RED method limit/base current history1	history2
Soot %	
Nitration Abs/cm ASTM D7624* >20 8.1	
Sulfation Abs/.1mm ASTM D7415* >30 19.5	



OIL ANALYSIS REPORT







CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number

: PC0082057 : 02619153

Unique Number : 5736263

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: KV40, VI)

:01 Mar 2024 : 01 Mar 2024

: 01 Mar 2024 - Wes Davis

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations 151 Ram Forest Rd, Stouffville, ON CA L4A 2G8 Contact: Shannon Abbott

sabbott@gipi.com T: (905)750-5900

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Shannon Abbott - GFL286